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CALIFORNIA STATE BOARD OF HEALTH

Weekly Bulletin

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CALIFORNIA'S HEALTH.*

A Review of Communicable Disease Control in 1924-1925.

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The past two years have brought to California several sharp, spectacular epidemics of exceptionally serious import. These years, in fact, may well be described by that unfortunate term "epidemic years." Extensive outbreaks of typhoid fever, virulent smallpox, plague and poliomyelitis, have taxed the resources of health departments and have required the full attributes of trained workers in public health. Had these epidemics occurred before the development of modern health departments, it is probable that they would have resulted far more disastrously. That the ill effects of these epidemics have not been more extensive is also due, very largely, to the cooperation of many organized bodies of medical men, civic officers, business men, clubwomen, chambers of commerce and legislative bodies in bringing them under control. In almost all instances an enlightened public opinion developed by the newspapers has also contributed greatly toward the growth of necessary public support of control measures.

With the possible exception of poliomyelitis these sharp and spectacular epidemics have passed into history. With their passing we become cognizant of many greater and more difficult problems that we have on our hands—growing problems, perennials that have suddenly, to all appearances, taken on rapid new growths but which in reality have slowly developed into menacing shapes which require the exercise of well planned drastic measures for cutting them down. Special reference is made to the alarming increases in California's diphtheria rates and to the increasing spread of typhoid fever within the State. Plans for the better control of these diseases will be discussed later in this paper and they will also form an important part of the program in the days which follow.

There has been a steady development during the past year in the organization of full time health departments. Since the last meeting of the Health Officers' Section, San Diego and Santa Barbara Counties have joined Los Angeles, Orange, San Luis Obispo, Monterey, San Francisco and San Joaquin Counties in the maintenance of public health on the full time plan. Half of the population of California is now enjoying the benefits to be derived from the administration of public health affairs on a full time basis. This fact alone should be a vital factor in promoting the better control of communicable diseases. There are indications at the present time that remarkable results in the reduction of morbidity and mortality rates shall be obtained in these favored localities. It is to the whole time health departments that we must naturally look for the best results in safeguarding and maintaining personal and community health.

SEVERE EPIDEMICS OCCUR.

Before discussing some of the persistent and menacing problems in communicable disease control that confront us at the present time it may be well to devote a brief space to some of the sharp and spectacular epidemics already mentioned. An outbreak of pneumonic plague occurred in California during the fall of 1924. The bringing under control of this epidemic required all available state and local health resources. Fortunately, the outbreak was checked successfully within a short time after the occurrence of the first case. There were 32 cases of pneumonic plague with 30 deaths, and 7 cases of bubonic plague with 5 deaths. During the period November 1, 1924, to June 27, 1925, 190 plague infected rats and 7 plague infected ground squirrels were proven in the laboratory. All of these infected rodents were found within a short distance of the location of the original outbreak. In the campaign undertaken, no less than 145,000 rats were exterminated, 2,473 buildings were demolished, which buildings had an appraised value of $747,000. At least 7,500 buildings were made rat-proof at an approximate expenditure by property owners of $2,777,000. This is the first outbreak of pneumonic plague to be traced to infected rats. It is the second pneumonic plague outbreak to have occurred in the United States. The first outbreak of this disease occurred in Oakland, California, in 1919, at which time there were 14 cases with 13 deaths.

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*Read at Annual Conference of California Health Officers, Long Beach, September 29, 1925.

Beginning in September 1924, Fresno experienced a disastrous outbreak of virulent smallpox, followed a few months later by a similar outbreak in San Francisco. In Fresno the number of cases increased quite regularly until the week ending October 27th, when a maximum of 44 cases for the week was attained. The outbreak ended at the beginning of December. During this period there were 25 deaths from smallpox in Fresno and vicinity, out of a total of 170 cases. This represents the highest fatality rate for this disease that has yet been recorded in California. For the whole State in 1924 there were 56 deaths and 9,449 cases. That we still have a vital problem in smallpox control is indicated by the figures for the present year. To September 1st, 4,243 cases of smallpox with 34 deaths have been reported in California. It is needless to state that continued efforts must be exerted in securing immunization against this disease. The method of prevention is too well known among those present here to warrant further discussion. Each of us has a most important duty, however, in promoting the more general vaccination of the people of our respective communities.

As for poliomyelitis, it is too early to give a retrospective viewpoint of the present outbreak. It is sufficient to state that there have been nearly 700 cases of this disease since the beginning of the present year, and there have been 70 deaths from poliomyelitis during the first seven months of 1925. The past three weeks have brought considerable reduction in prevalence. To judge from past records we are probably justified in expecting a further increase in the incidence of poliomyelitis next month. Since 1910, the peak of poliomyelitis morbidity has occurred in the month of October of seven different years. Upon two separate occasions the peak occurred in September and also upon two occasions it occurred during November. The medical profession of the State has responded with a remarkable spirit of cooperation in bringing poliomyelitis under control during the past summer. Health officers have done much in arousing the people of their respective communities to an appreciation of the necessity for enforcing rigid measures of control. It is evident that there is need for continuing to regard seriously every case of illness that may be suspicious of poliomyelitis. It is only by persistent intensive action that we can even hope to be able to keep this disease in check.

These are the spectacular features of public health in California during the past few months. As already suggested, we have even greater problems in some of the more common diseases, such as diphtheria and typhoid fever. Diphtheria, specially, is deserving of the undivided efforts of every health officer in order that the terrific and disastrous effects of this disease may be eliminated. You probably do not realize it, but it is a fact that California has next to the highest death rate for diphtheria of any of the states. In the year 1924 there were 11,110 cases of diphtheria reported in California with 695 deaths. This brought a death rate of 17.7 per hundred thousand population. There seems to be a slight reduction in prevalence during 1925 as there have been but 3,620 cases of the disease reported up to September 1st of this year, with 154 deaths during the first 7 months of the year. However, there must be a concerted attack directed against this disease, for we have no guaranty that the morbidity and mortality rates may not go still higher.

DIPHTHERIA RATE ALARMING.

It is unfortunate that California is one of the few states where the diphtheria death rate shows a continued advance during the past ten years. Washington and Oregon have produced similar increases but their rates for last year are very much lower than is that of California. Middle-western states, having large populations, show reduced rates in diphtheria mortality over those that prevailed ten years ago, and some states, for example Louisiana, Minnesota, Vermont, New Hampshire, Maine, Delaware and Florida, have been able to maintain uniformly low diphtheria death rates over a long period of years. It is to New York state, however, that we must look with pride for having, by means of an active, intensive campaign of immunization, reduced the diphtheria mortality rate for that state to 9.9 per hundred thousand, virtually half of the rate for California last year.

It is possible for equally satisfactory results to be obtained in California. Our knowledge of the use of toxin anti-toxin enables us to bring this disease under control. We have the knowledge and in most places of the state we have the necessary machinery—there remains but the initiative and the hard work that is required to organize and carry on a successful campaign for the immunization of every child in California against diphtheria. If New York state can reduce its diphtheria mortality rate from 17.9 per hundred thousand population to 9.9 per hundred thousand population within a period of ten years, California can do the same. If New York City can reduce its diphtheria rate from 24.5 per hundred thousand population to 11.9 per hundred thousand population, during a period of ten years, any of the large cities of California should be able to make similar reductions in their diphtheria death rates.

To be sure, many California communities have provided toxin anti-toxin immunization during the past few years, and with remarkable results. Doctor H. C. Brown, Health Officer of San Jose, read a paper on diphtheria control at a meeting of the Health Officers' Section of this League held in Santa Monica in the year 1921. Doctor M. L. Fernandez, Health Officer of Pinole, in Contra Costa County, did not attend that meeting but he read Doctor Brown's paper as published in the California State Board of Health Weekly Bulletin. Impressed with the emphasis placed upon immunization against diphtheria, as outlined in Doctor Brown's paper, he began an intensive campaign to secure the immunization of all school children in his community. He secured a small appropriation for the employment of a deputy health officer to do the work, persuaded the local Red Cross Chapter to contribute funds for purchasing the immunizing material, made a charge of a few cents to the parents of the children involved and secured, during a few weeks, the immunization of all but half a dozen children in the town. As a result of this campaign and of the continued immunization of the new crop of children appearing each year, there has not been a single case of diphtheria in Pinole since March, 1922, with the single exception of a case that occurred in one of the few children whose parents refused to have the immunization done.

The San Joaquin County Health District, under administration of Dr. J. J. Sippy, District Health Officer, has accomplished outstanding results through the administration of toxin anti-toxin. Doctor J. W. Morgan, City Health Officer of Modesto, has carried on a similar campaign with equally satisfactory results. Louis Olsen, health officer of Palo Alto, has also provided for the immunization of Palo Alto's children against diphtheria. Some of the cities of Alameda County have done likewise. Doctor Charles R. Blake, Health Officer of Richmond and of Contra Costa County, has secured the immunization against diphtheria of practically every school child in his districts. Similar work has been done in Willits, Hollister, Turlock and many ~~other places.~~ These are but a few examples of places in California where children are regarded as of sufficient value that it is worth while to insure them against the havoc wrought by this devastating disease. Out of this meeting there should come a definite plan for an energetic state-wide campaign of diphtheria immunization. Since fully half of our population is centered in the large cities of San Francisco, Los Angeles and the East Bay cities, and since there is organized public health machinery existing in these cities, we would naturally look toward them as leaders in such a campaign. It is logical to make these larger cities the principal centers of attack, and the increasing diphtheria mortality rate in these localities makes necessary, as a matter of public welfare alone, that the incidence and mortality from this disease be reduced greatly, else the reputation of the whole state must be sacrificed, for the reason that since half of the population of the state is centered in these metropolitan areas their rates must, to a large extent, determine the trend of the rates for the entire state. The sessions to follow will provide full information concerning plans for a campaign of immunization, the technique of administration and detail matters relating to the procedure. It is asked of every health officer and every public health nurse that he and she devote intensive energy toward ridding California of the stigma associated with our high diphtheria rates. With the full cooperation of each this blemish can be removed and we can take our place among those states where children are adequately protected against this scourge of childhood.

TYPHOID RATE TOO HIGH.

Up to 1923 California had reason to be extremely proud of its record in the reduction of typhoid fever mortality, for this rate had been reduced from 32.6 in 1906 to 4.0 per hundred thousand population in 1923. Unfortunately, in 1924 we suffered an extremely disastrous outbreak of typhoid in which there were 632 cases in a single locality. This brought our death rate for that year to 5.6 per hundred thousand population. Excluding the 632 cases involved in this sharp and sudden outbreak, the rate was 4.4 per hundred thousand population. To be sure, this represents only a slight increase over our lowest rate but it emphasizes the importance of carrying on incessant warfare against typhoid fever. Up to September 1, 1925, there have been but 558 cases this year, with 52 deaths up to August 1st. Our highest incidence and mortality occurs during September, October and November of each year, and the statistics for these months to come will tell the story of whether we shall better our record this year or not.

There is no excuse for tolerating the continued presence of typhoid fever in any community. The cause is so well known and the methods of determination are so well worked out that there can be no possible reason for failing to determine the source of nearly every case of typhoid fever that may occur. Any trained health officer who investigates a case of typhoid fever by doing hard, grinding detail work should be able to locate almost every source. A detective of ability who is sent out on a crime detail never stops his efforts until he solves his problem. This may involve days and it may involve weeks of work, but he achieves a reputation such as that gained by the Northwest Mounted Police—he "gets his man." The methods used in determining the source of a typhoid fever case are much like those employed by the trained detective. The source is determined by a process of elimination. Milk, water, foods, possible carriers and other possible factors are considered in turn and if they do not apply are eliminated. It requires work—detail work, some of which may be boresome, but it is only by the application of these methods that success can be attained. It is asked of all health officers that they apply all energy toward determining the exact source for every case of typhoid that may occur in their communities.

Our records show that a large number of cases of typhoid fever are contracted by persons who are away from home So far this year, at least 13 cases within California are known to have been contracted by individuals who were away from home. During this same period at least 21 cases have been brought into California from eastern states. Most of these were contracted on automobile and camping trips and several were brought in on shipboard. Seven cases this year have been brought into California from Pacific Coast States, Mexico and Canada. Of course the health officer can do little or nothing to prevent the importation of these cases. The knowledge of the fact that cases of typhoid fever are continually brought in from other communities will enable him, however, to be on the alert to safeguard against this menace.

If the examination of all milk handlers were required, and if the pasteurization of milk supplies were made obligatory, many outbreaks of typhoid fever might be prevented. We have too many milk-borne outbreaks in this state and too little effort is exerted in detecting possible carriers engaged in handling milk supplies. The carrier problem is of prime importance in the consideration of methods for the control of typhoid fever. It is greatly to their credit that several health officers and medical men in the rural districts of the state, through their own initiative and knowledge, have discovered the presence of carriers in their communities. Of course, the determination of the carrier requires the use of laboratory procedure, but with state laboratory service available any health officer may be able to prove a suspected carrier.

Many employees of labor are requiring that their employees be immunized against typhoid fever. Liability insurance requirements have had considerable to do with the adoption of such regulations. The law requires employers of labor to provide adequate supplies of pure drinking water. The risks involved are so great that many insurance companies may be expected in the future to require that the insured individuals be immunized. The time may come when all insurance companies will require immunization against typhoid of all policy-holders, unless a considerably higher premium is paid. Should this condition arise there would no doubt be a tremendous impetus given to vaccination against typhoid fever.

The typhoid death rate for California can be reduced from 4.0 per hundred thousand to 2.0 per hundred thousand population. Many states have a rate around 2.0 per hundred thousand population. In spite of the fact that we depend largely upon surface streams for our water supplies it is possible for us to accomplish this much-to-be desired reduction. If we were to prevent the infection of milk and food supplies, and if we were to discover and supervise our carriers, we could no doubt cut our typhoid death rate in half, without giving consideration of a special sort to water supplies. However, there must be no relaxation in our efforts to provide potable water supplies, and to eliminate all of the contaminated smaller supplies, such as wells and springs. Most important of all, at the present time, however, is the carrying on of intensive investigation in every case of typhoid fever that appears. Once the source is discovered, the rest is easy.

These are some of the high lights in communicable disease conditions in California at the present time. Mention has not been made of the reduction in scarlet fever morbidity and mortality, which is rather significant, nor has any mention been made of the minor communicable diseases of childhood. There is most urgent need for hard work in the control of diphtheria and typhoid fever and if we join together in a spirit of full cooperation to reduce the prevalence of these diseases we shall accomplish a most commendable objective. There is little that is spectacular in this work and there is little opportunity for glory, but there is a satisfaction in accomplishing, through hard work, the salvation from sickness and possible death of the people who make up the population of our Golden State.

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MORBIDITY.*

Diphtheria.

82 cases of diphtheria have been reported, as follows: Los Angeles 22, Oakland 7, Compton 1, Los Angeles County 4, Burbank 1, Pasadena 3, Pomona 4, Alhambra 1, Whittier 1, San Francisco 4, Tulare County 2, Visalia 1, Orange County 2, Santa Ana 2, Fresno 1, Colusa 2, Santa Clara County 1, San Rafael 1, Amador County 1, Fresno County 3, Modesto 1, San Joaquin County 2, Lodi 1, Riverside County 1, Alameda 1, Sacramento 3, Berkeley 1, Stockton 2, Tulare County 1, San Diego 2, South Pasadena 1, Sonoma County 2.

Measles.

14 cases of measles have been reported, as follows: Los Angeles 5, San Francisco 4, Madera County 1, Sausalito 1, Los Angeles County 1, Pomona 1, Sacramento County 1.

Scarlet Fever.

48 cases of scarlet fever have been reported, as follows: Los Angeles 9, San Francisco 10, Santa Clara County 5, Fresno County 5, Santa Ana 2, Orange County 1, Sacramento 1, Tracy 1, Manteca 1, Redlands 1, Alameda 1, Huntington Park 1, Los Angeles County 3, Whittier 1, Mill Valley 1, National City 1, San Jose 1, Oakland 1, Stockon 1, Kingsburg 1.

Smallpox.

14 cases of smallpox have been reported, as follows: Oakland 1, San Francisco 1, Berkeley 1, Sacramento 2, Los Angeles County 1, Redding 4, Los Angeles 4.

Typhoid Fever.

27 cases of typhoid fever have been reported, as follows: Los Angeles County 3, Sacramento County 3, Riverside County 2, Sacramento 1, Long Beach 1, San Joaquin County 3, Redlands 2, Plumas County 1, San Francisco 2, Madera 1, Los Angeles 2, Contra Costa County 1, Sonoma County 2, California 3.

Whooping Cough.

75 cases of whooping cough have been reported, as follows: Pasadena 13, Los Angeles 11, Berkeley 10, Oakland 7, Long Beach 6, Los Angeles County 6, Monterey County 3, Monrovia 3, Alhambra 1, Sierra Madre 1, Stockton 2, San Diego 4, Colusa 3, San Francisco 3, Orange County 2.

Poliomyelitis.

15 cases of poliomyelitis have been reported, as follows: Oakland 2, Walnut Creek 1, Los Angeles 3, San Francisco 1, Fresno 1, San Joaquin County 1, Stockton 3, Los Angeles County 2, Berkeley 1.

Epidemic Meningitis.

Riverside County reported one case of epidemic meningitis.

Epidemic Encephalitis.

Two cases of epidemic encephalitis have been reported, one from Oakland and one from San Francisco.

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*From reports received on September 28th and 29th for week ending September 26th.

COMMUNICABLE DISEASE REPORTS.

	1925				1924			
	Week ending			Reports for week ending Sept. 26 received by Sept. 29	Week ending			Reports for week ending Sept. 27 received by Sept. 30
	Sept. 5	Sept. 12	Sept. 19		Sept. 6	Sept. 13	Sept. 20	
Anthrax	0	0	0	0	0	0	0	0
Chickenpox	27	22	35	39	23	31	49	48
Diphtheria	62	56	85	82	119	122	127	151
Dysentery (Bacillary)	2	4	2	2	0	1	0	0
Epidemic Encephalitis	1	2	2	2	1	3	2	2
Epidemic Meningitis	2	5	2	1	1	1	1	2
Gonorrhoea	115	85	299	77	62	117	100	97
Influenza	2	5	12	11	3	6	6	9
Leprosy	0	1	2	0	0	0	1	0
Malaria	7	5	2	2	1	4	5	2
Measles	14	12	12	14	17	6	12	14
Mumps	47	35	70	106	31	24	33	37
Pneumonia (lobar)	26	55	15	24	27	19	25	29
Poliomyelitis	28	19	23	15	2	5	3	7
Scarlet Fever	33	34	39	48	55	44	61	80
Smallpox	24	14	19	14	57	52	66	40
Syphilis	247	127	220	109	99	184	117	104
Tuberculosis	160	125	153	163	95	137	172	170
Typhoid Fever	36	21	20	27	16	29	19	28
Whooping Cough	79	90	83	75	37	57	53	40
Totals	912	717	1095	811	646	842	852	860

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